NH Department Of Education
Transcript for Demo of Growth Analysis Application

As of February 29, 2012

Welcome to the testing or pilot phase of the new growth analysis ap.

Please know we have released this only to superintendents, curriculum and assessment leads and key staff at the NH DOE.

We can not stress enough how this is a draft a work in progress.

So please do not forward this email and tool to others at this point.
We look forward to your feedback and we hope to make changes and corrections based up critical issues you identify. We also must verify the data, it has not been completely verified. Additionally, we need to load the Fall 2011 NECAP results into this application. Until these items are complete, we appreciate you constraining the audience. We look forward to releasing the official tool in late spring.

So the growth analysis application just as the name implies runs on your desktop computer or can also run on an ipad, iphone or similar device. Its primary use is to help better understand the necap assessment results. Specifically the growth of students. It won't give magic answer. It's not the end-all be-all that will give you all the answers and tell you exactly what to do to improve you school performance. What it hopefully will do is allow you to better understand or give you one more perspective on how students are doing. It will allow you to generate more question that you can then delve into and look for ways to improve instruction.

So the GAA uses what is called the growth model so you can look not only at performance but also how well your students are growing. Simply put it's a statistical model that look at all the students who scored one score on the NECAP last year (say NECAP math) and for all the kids that scored the same score last year, how did each child compare this year to his/her counterparts. So for example, for all the kids who scored 430 on the NECAP fourth grade assessment last year, how did all those kids score this year in fifth grade and for all those children it basically ranks them into a rank order or percentile.

So the child who scored 430 last year and score the highest for all the kids who scored 430 last year, is the top percentile and the child who scored 430 last year and had the lowest score this year is the lowest percentile and all the kids in between are ranked in percentile. That's a simple way to look at it. There is more behind the statistical model in terms of regression analysis incorporating multiple years, but at a basic level, that is what we are looking at. That is what this growth factor is.

This tool just allows you to look at groups of individuals it does not let you look at the student, it does not let you drill down below a cell size. There are a fixed number of groups that you can look at, race, gender and a couple of other groups. However it should also be noted that the growth factor, this percentile, will also be incorporated into performance Plus. So in addition to this tool which offers a great graphical representation, you will also

be able to drill down in the PerformancePLUS tool and run a variety of reports in PerformancePLUS using the growth factor.

So let's go ahead and get started and you should have received a URL and through that URL you can go ahead and download the application and once you have download the application you can run it without being connected to the internet. The initial screen that lets you enter the application. There are two primary ways to enter the application. One is through discover and discover allows you to discover a group of schools. At this point it's limited to SAU. So if you want to discover all the schools in an SAU or the State it's a good way to get in and see all the schools in the SAU.

In the future the vision of discover is to allow you to discover how different groups of students are growing. So for instance perhaps we would put in the 21st century after school program and you could discover who this group of students are performing. Addition, the vision is to allow you to create your own groups of students. But for now it's limited to SAUs, but more likely you will want to go into the search option. So the search option, basically you can search by city, district name or school name. We are going to search by city and for the city Dover. So as you type in letters it narrows down the cities that match the letters. So we will select Dover to choose the Dover schools. Before we get started I should mention that I will simply be providing an overview of some of the highlights. This should get you started, but the tool is fairly self-explanatory and easy to navigate. So you should explore.

At this point I selected Dover and could select additional schools, but now let's just look at Dover. You can click on Map and see a GIS map a graphical representation of the schools on a map. Or ideally you most likely want to go to straight to performance and this is what you have finally been waiting for, the primary screen in the growth analysis ap. This is the screen that allows you to analyze growth across groups throughout the state. There are two primary axis in the growth analysis application, obviously the x and y axis.

If you look going up and down the y axis from the top to the bottom of the screen, what you are looking at is the percentage of students at or above proficient. So this is showing for a group of students what percentage of them were at or above proficient.

What we are looking at left and right across the x axis is growth, in particular the median growth. So this is taking, again as I described before, it's looking at every student who is in that group and looking at each of their growth percentiles and then finding the median of that group or the middle student. What is his/her growth percentile? So for example if the median growth percentile for a school is 60 then at least half (because it's the median) of your school scored grew at the 60th percentile or higher. So that's a good thing that means at least half of your students are growing among the fastest in the state.

The size of the bubble is also important. The larger the bubble the larger the number of students represented by the school or group.

The next thing to point out is that if you divide the graph into four quadrants that the top right hand quadrant is really the quadrant showing you the top students in terms of performance and growth. So this is where you want to be. You want you students to be high achieving and you want them to be growing rapidly as well – so that is a good think. But it may be that your students are in the bottom right quadrant. This is not a bad thing at all. It may be that because of demographic or other reasons your students are not achieving high on the assessment. However, they are growing faster than their counterparts in the state and so maybe you have some good curriculum things going on in your district that are helping your students accelerate their path to proficiency. The upper left hand quadrant are going to be students who are achieving well, but they are not growing quite a fast as their counterparts around the state. They may be growing fast enough to obtain proficiency, but not as fast as some of their counterparts. And the lower left quadrant is those folks who are low proficiency and low growth. Certainly these are groups you want to raise your eye to and really delve into to try and understand how to improve the performance for these folks who are both low achieving and lower growth.

Again the bubbles represent groups and in this case they represent schools – the Dover, Garrison, Horne and Woodman – four schools in Dover. The bubbles we will see later can also represent gender or grade (other groups too). It's also important to point out that we are currently looking at 2010-11 Math. You must think about what you are looking at. We are looking at the fall 2010 NECAP math results. So this is the testing year. So it's the curriculum that was taught in 2009-10 and it's looking at growth between the 09-10 and 10-11 year. So many factors to consider as you think about the data you are viewing. We can go back to 07-08, which is looking at the Fall 2007 assessment, which is comparing to the Fall 2006 assessment to consider growth. Again consider the years you are looking at. All of this data is limited to grades 3-8 as we only have consecutive NECAP assessment data for those grades.

So let's go ahead and look at one school – the Horne Street School in Dover. You can see when you select the school that it's in the upper right hand corner. So it is doing well both in terms of proficiency and growth. So the kids are growing faster than other kids in the state. What we are viewing is the observed growth. So again, what we are looking at is the median student and the median student grew at the 63rd percentile compared to all the other students in the state who had a similar score last year. So at least ½ the students were in the 63rd percentile or higher. So that is good news for Dover.

The other thing to point out is the system also gives you a target growth, 30 % in this example. So this is the growth that students have to achieve, the percentile growth in order to achieve proficiency or in this case maintain proficiency. So because the majority of kids here are already proficient, the average or median target growth will be a lower number. The other thing that is important as we think about this is that this then allows for both a norm based, normative evaluation as well as a criterion based evaluation. So that is another powerful part of this model. From a normative based we can see that the 63rd percentile is normative to all the other students in the state. So it gives you an idea of how you are doing normatively against all the other students in the state. The target is a criteria base. So the target is saying let's make sure everyone maintains proficiency or

achieves proficiency within three years or by the time they reach 8th grade –which ever comes first

So although you may have a median observed growth that is lower than ½ the state, you may still be growing fast enough to ensure your students are achieving proficiency over time. So it's important that you consider both the normative and criterion based numbers.

The other important thing that I need to specify and I mentioned earlier is that this data has not been fully verified but also it is not tied right now to AYP or other accountability reports. So please don't try to compare the percent proficiency in this case 81% for this school, to your AYP report. For example, AYP may only include students who were there for the entire year, which as this model may include all students. Also with the growth factor comparing student's growth over two years, this report will only include students enrolled for two consecutive years. Again, do expect you are comparing apples to apples.

I just mentioned the 81% proficiency. I should point out that when you select a school, if you look at the y axis it will tell you the exact proficiency or growth factor for that group. So if you look on the x axis you will see the middle student is at 63%.

So let's go ahead and we will look at some different years. Right now we are looking at 10-11, but we can drop down to 07-08. Now we can look at where Dover was in 07-08. We can see one school, the Garrison School was already fairly high. But if we look over time from 07-08 to 08-09 they moved a little bit center, 09-10 they moved a bit to the right and then 10-11 they are moving further to the right. So over time we see a trend that seems to show shifting from left to right and down to up. So obviously this is what you want.

We can also switch to reading and see where reading was in 10-11. And we can do a similar thing with the reading where we see in 07-08 they were much further to the left. So they were growing much slower than other schools. Then over time, although we see one school branch to the left for a minute there and now they are swapping, over time they all move to the right.

So again, this is not going to give you a specific answer, it may help you ask some questions. For example, did you put a new reading program in and is that making a difference? Was there a blip from one year to the next where two schools switched because of a certain population of students. So again not giving answers, but again generating questions that will help you better understand how your schools are doing.

The other thing we can do now, is that you will want to play with all these other options on the screen. What I'll do right now is I'll look at is next to the District Dover, is by school. We can also group by different groups other than school. So we can group by ethnicity and this will break down and show you how your different groups are doing. So obviously in New Hampshire there is a larger white population, so they are going to be the bigger bubbles.

Here you can see in this case it's your Hispanic group. Every time you highlight a group, it will highlight that group on the right hand side and show you which group you are currently looking at.

So you can also view it by grade and other students groups (e.g. SES, gender and ELL). So in this case we can see, what is probably not a surprise that the ELL students are not performing as well in Reading. But if we switch to math you can see again, they are not performing as well.

So the next thing I want to show you, I'm going to go back to viewing by schools. You can also include bubble labels, although if there are too many bubbles this might get confusing. But by selecting a school it will actually label the school on that chart. So if you have multiple schools listed across several districts, you can easily pick out a school by selecting the school and the label will appear.

Additionally there is a more info button. So if you click on the more information link, you will get more information about the school. I encourage you to look at that. It breaks down the enrollment and some other information about the school. You can actually jump to the school profile found on the NH DOE website. Additionally, view by allows you to view the school(s) by different areas. For example, grade allows you to view by grade.

So again, I'm not going to walk you through every single piece of this system. But you can go back up to 'schools' and play around with it. As you can see it fairly intuitive.

There are some other items I want to show you fairly quickly. If we go to a map view you can view geographically via a GIS view. You can then jump directly to their performance or switch back to the performance view.

You can share the information and actually create a PDF of the graph that you are viewing. Great for a school board meeting or some other purpose, perhaps sharing with teachers. You can explore and it will allow you, when viewing a bunch of schools, see which ones are title I or charter schools. So for example if you were viewing the entire state you could quickly pull out the title I or charter schools. Finally, the discover button will allow you to view all the schools in the state or also select SAU(s) and view their schools. And then it will add the bubbles for those schools. So I can actually do it and for example, we will scroll down and choose Merrimack Valley and it will then add the schools in Merrimack Valley to this list.

So thank you for taking a brief moment to understand this growth model application. Again as I mentioned this is just an overview. Hopefully now you know enough to play around with the application yourself.

We ask again that you take a look at it. We have a webinar that was mentioned in the email notice to receive your feedback. There is also an email where you can reply with feedback. We can not stress enough and must make sure you are aware that we are not going to be making a lot of changes to this application. We don't have the funds or ability to make

many changes. But certainly if there are critical items that mandate changes we will do those as well as validate the data.

Additionally if you have suggestions that we can not get in now, we will try at a future date to get them included in future releases of this tool.

So we hope this will be one more tool you can add to your toolkit to help you better understand and see how schools are doing. We look forward to your feedback to ensure this is something valuable to release to the broader community. We look forward to hearing from you over the next month. Thank you very much and have a wonderful day!